JMTC
Continuous Improvement in Safety Performance
FY 2006

RIA Garrison Safety Office
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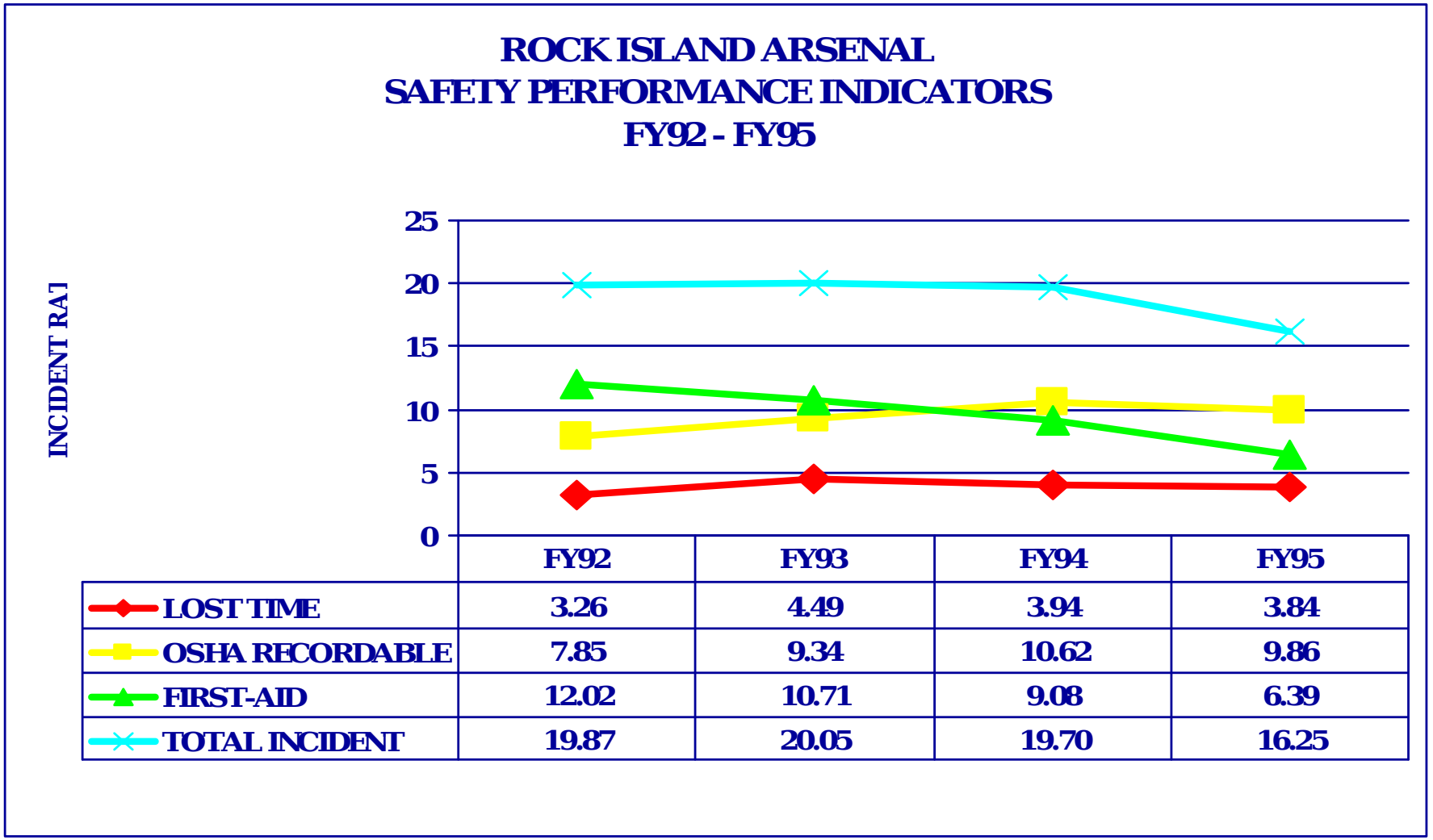
Briefing Agenda

- ✔ Program Justification
- ✔ What is the CISP Program
- ✔ The Intent of the CISP Program
- ✔ The CISP Process
- ✔ Action Plans
- ✔ Expectations of the CISP Program
- ✔ Safety Metrics
- ✔ Cost Avoidance
- ✔ Safety Performance Profile
- ✔ Accident Investigations

Program Justification

- ✔ **Analysis of FY 1992 to FY 1995 concluded that:**
  - ➤ **No significant improvements in incident rates.**
  - **Majority of injury experiences were of the more serious type (Lost Time, OSHA Recordable).**
  - **Associated Costs (Medical, COP, Compensation, etc.) would continue to increase.**
- ✔ **Analysis showed the need to refocus on:**
  - **Accountability for Accident Prevention.**
  - **Development of Accident Prevention Strategies.**
  - **Increasing Safety Awareness.**
  - **Increasing Employee Involvement.**
  - **Setting Safety Performance Goals and Objectives.**

Program Justification



	FY92	FY93	FY94	FY95
LOST TIME	3.26	4.49	3.94	3.84
OSHA RECORDABLE	7.85	9.34	10.62	9.86
FIRST-AID	12.02	10.71	9.08	6.39
TOTAL INCIDENT	19.87	20.05	19.70	16.25

What is the CISP Program

- ✔ **Concept: Continuous Improvement**
- ✔ **Approach: Structured and Disciplined**
  - ➤ **Command Support**
  - **Setting Safety Performance Goals**
  - **Identifies Major Problem Areas**
  - **Action Planning**
  - **Accountability for Results**
- ✔ **Results: Continuous Improvement in Safety Performance**

The Intent of the CISP Program

- ✔ **Establishes reasonable, attainable, and measurable safety performance goals at Directorate and Division levels.**
- ✔ **Improves Safety Performance by strengthening accident prevention strategies, before and after the fact.**
- ✔ **The development of Action Plans that specify objectives to meet specific performance goals and defines and assigns accountability for results at all employee levels, management and labor, alike.**
- ✔ **Continuous Improvement in Safety Performance.**

The CISP Process

- ✔ **Preview Previous Years Safety Performance**
- ✔ **Commander's Establishes Goals for FY**
  - ➤ **Incident Rates**
  - **Associated Costs (Medical, COP, Compensation, etc.)**
- ✔ **Development of Safety Performance Profiles**
  - **Directorate / Division / Offices**
- ✔ **Conduct Briefing of Safety Performance Profiles**
  - **Detailed Analysis of Previous Years Incidents**

The CISP Process

- ✔ **Directorate / Division / Offices Assign Accountability for Goals**
  - **Incident Rates / Special Initiatives**
- ✔ **Implement the Action Plan**
- ✔ **Monitor and Evaluate Progress of Action Plan**
  - **Compliance with Implementation**
  - **Assess Safety Performance**
  - **Make Necessary Adjustments**
- ✔ **Reporting Results**
  - **Quarterly Reviews with Commander / Director**
  - **Safety Office provides Monthly Safety Performance Updates**

Action Plans

- **Directorate / Division Actions Plans:**
  - **Injury / Illness Incident Rates are compatible with Commander's Goals and Objectives.**
  - **<u>Who</u> will be accountable / responsible for implementing the action plan.**
  - **<u>What</u> objectives will be implemented to address problem areas.**
  - **<u>When</u> the objectives will be implemented.**
  - **<u>How</u> the objectives will be measured and monitored to evaluate progress and effectiveness.**
- **Safety Office will conduct periodic reviews of Action Plans.**

Expectations of the CISP Program

- ✔ **Continuous Improvement in Safety Performance**
  - ➤ **Fewer Employees Injured and Less Severely**
  - **Reduced Incident Rates**
- ✔ **Reduced Current and Future Associated Costs (Medical, COP, Compensation, etc.)**
  - **Positive Impact on Profitability**
  - **Compensation Cost Avoidance**
- ✔ **Increased Accountability for Accident Prevention**
  - **Intervention at the Right Level**

Expectations of the CISP Program

- ✔ **Ability to Successfully Benchmark Against World-Class Organizations**
  - ➤ **Lost Time Frequency Rates Less Than 1**
- ✔ **Increased Productivity and Overall Efficiency**
  - **Improved Reputation**
  - **Increased Competitive Posture**
- ✔ **Reduces Possible Audits from Other Agencies**
  - **OSHA**
- ✔ **Increased Employee Morale**

Definitions

- **Lost Time Injury: A work related injury or illness involving one or more full days away from work beyond the date of occurrence.**
- **OSHA Recordable Injury: All work related injuries and illnesses, and those injuries that result in loss of consciousness, lost workdays (days away from work and/or restricted activity), transfer to another job, or require medical treatment beyond simple first-aid.**

Definitions

- **First-Aid Injury: Any injury one-time treatment and subsequent observation of minor scratches, cuts, burns, splinters, and so forth, that do not ordinarily require medical treatment.**
- **Severity Rate: The number of lost workdays away from work per 200,000 hours worked.**

Safety Metrics

Frequency Rates

Calculating Frequency Rates:

Frequency Rate = (Number of Incidents) x (200,000 Hours)*

Number of Exposure Hours

*** 200,000 Hours = (100 persons) x (2000 Hours) or 1 Man Year**

Example:

RIA-JMTC 2006

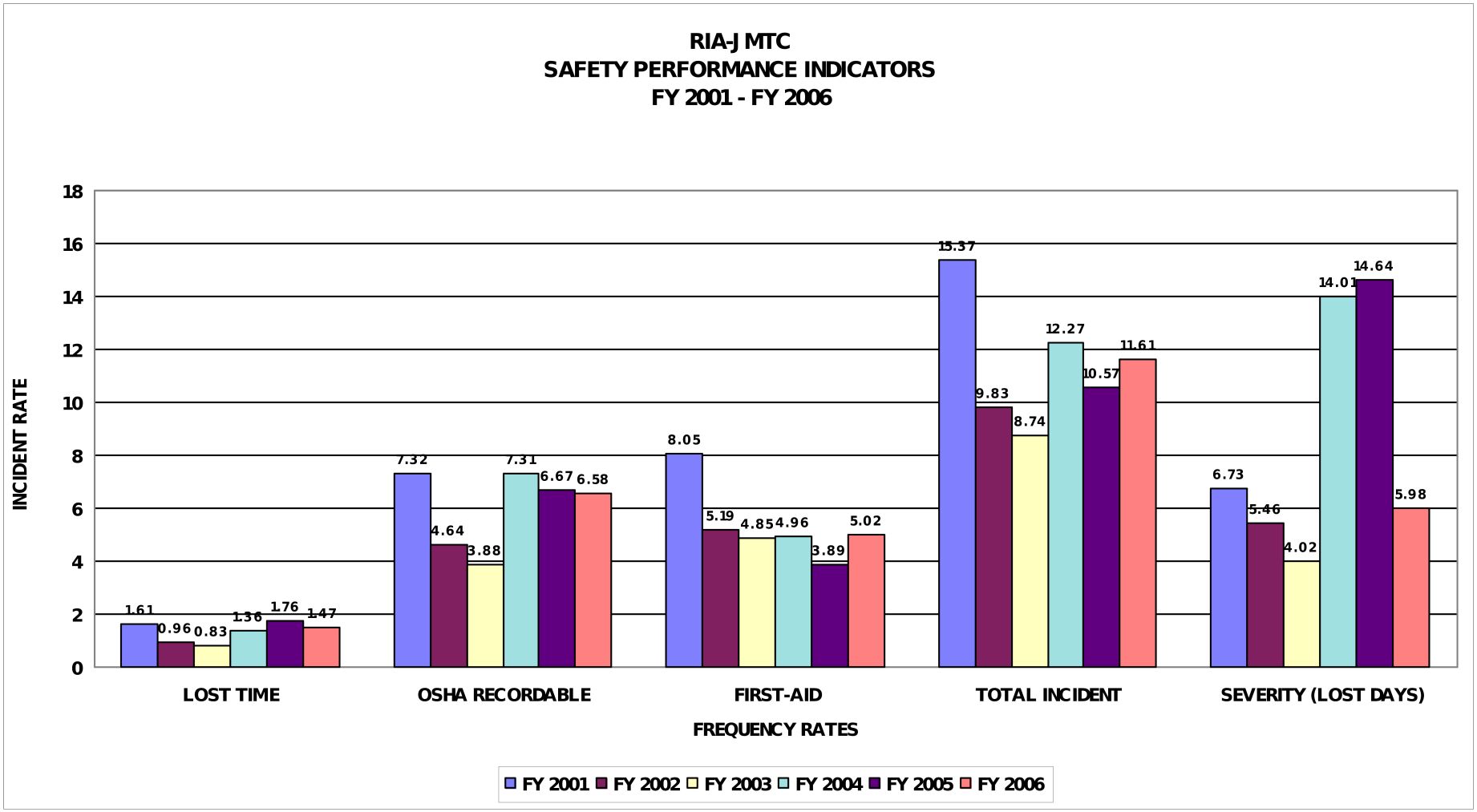
Total Incident Rate (JMTC) = (134) x (200,000 Hours) / 2,308,641.3

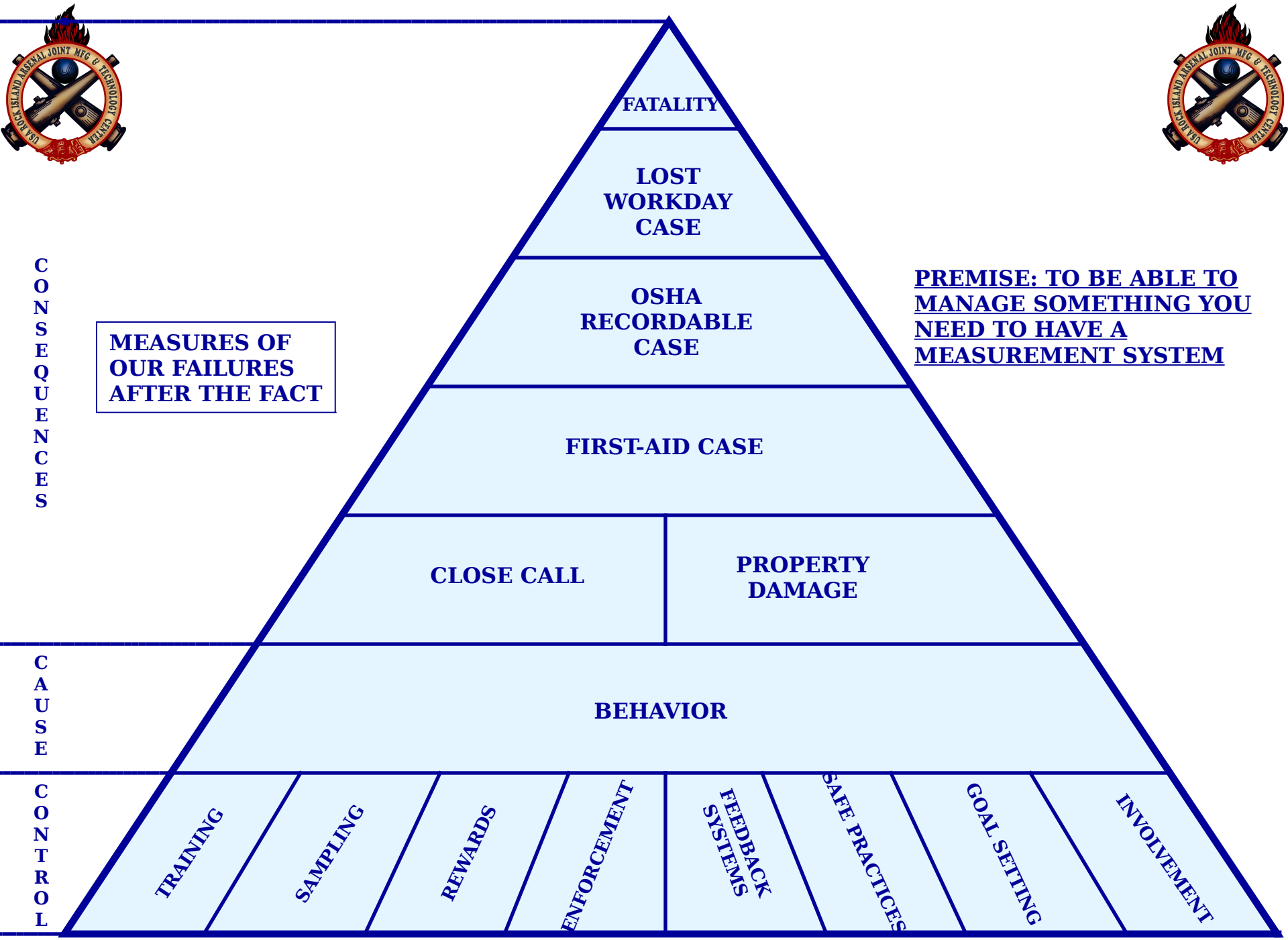
6-Year Profile

CASES	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
LOST TIME	11	7	6	11	19	17
OSHA RECORDABLE	50	34	28	59	72	76
FIRST-AID	55	38	35	40	42	58
TOTAL INCIDENT	105	72	63	99	114	134
SEVERITY (LOST DAYS)	46	40	29	113	158	69
HOURS OF EXPOSURE	1,366,682.4	1,464,709.6	1,442,056.2	1,613,645.9	2,157,993.1	2,308,641.3

FREQUENCY RATES	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
LOST TIME	1.61	0.96	0.83	1.36	1.76	1.47
OSHA RECORDABLE	7.32	4.64	3.88	7.31	6.67	6.58
FIRST-AID	8.05	5.19	4.85	4.96	3.89	5.02
TOTAL INCIDENT	15.37	9.83	8.74	12.27	10.57	11.61
SEVERITY (LOST DAYS)	6.73	5.46	4.02	14.01	14.64	5.98

6-Year Profile




FATALITY
LOST WORKDAY CASE
OSHA RECORDABLE CASE
FIRST-AID CASE
CLOSE CALL
PROPERTY DAMAGE
BEHAVIOR
TRAINING
SAMPLING
REWARDS
ENFORCEMENT
FEEDBACK SYSTEMS
SAFE PRACTICES
GOAL SETTING
INVOLVEMENT
CONSEQUENCES
CAUSE
CONTROL
MEASURES OF OUR FAILURES AFTER THE FACT
PREMISE: TO BE ABLE TO MANAGE SOMETHING YOU NEED TO HAVE A MEASUREMENT SYSTEM

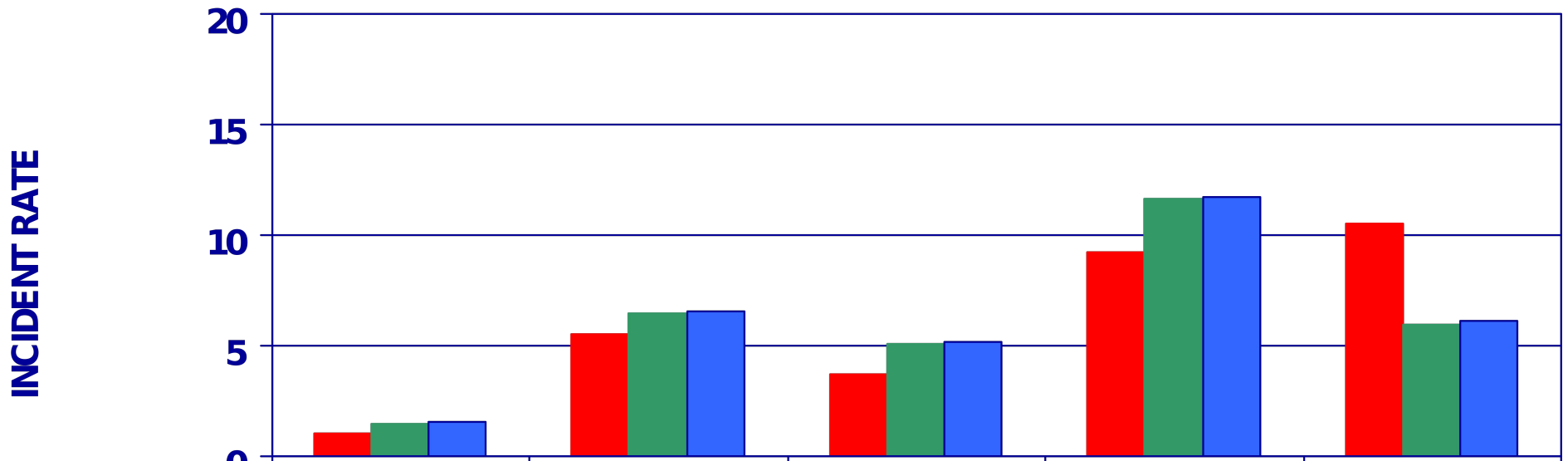
Cases by Office Symbol

RIA-JMTC FY 2006

DESCRIPTION	COST CENTER	LOST TIME	OSHA RECORDABLE	FIRST-AID	TOTAL INCIDENT	LOST DAYS
JMTC - TOTAL	A0000 - D9900	17	75	59	134	69
CO	A0000	0	0	0	0	0
QM	G0000	0	0	0	0	0
RM	H0000	0	0	0	0	0
SE	J0000-J5000	0	1	1	2	0
BD	F0000-F2000	0	0	0	0	0
LD	B0000-B3300	3	9	6	15	18
MS	C0000	0	0	0	0	0
PD	D0000-D9900	14	65	52	117	51

RIA MISSION SAFETY PERFORMANCE
CEILING vs YTD vs 12 MONTH AVERAGE
YTD SEP FY 2006

Status: RED



	LOST TIME	OSHA RECORDABLE	FIRST-AID	TOTAL INCIDENT	SEVERITY
CEILING	1.02	5.48	3.72	9.20	10.50
YTD	1.47	6.50	5.11	11.61	5.98
12 MONTH	1.51	6.54	5.17	11.70	6.10

Safety Performance Status

FREQUENCY RATES	12 MONTH TREND	+/- CEILING	CEILING	YTD
LOST TIME	→	44%	1.02	1.47
OSHA RECORDABLE	↑	19%	5.48	6.50
FIRST-AID	→	37%	3.72	5.11
TOTAL INCIDENT	↓	26%	9.20	11.61
SEVERITY		-43%	10.50	5.98

Status: RED

Metric Evaluation: Ceiling Exceeded (+10%)

0 or 1 ceiling	2 ceilings	3 or more ceilings

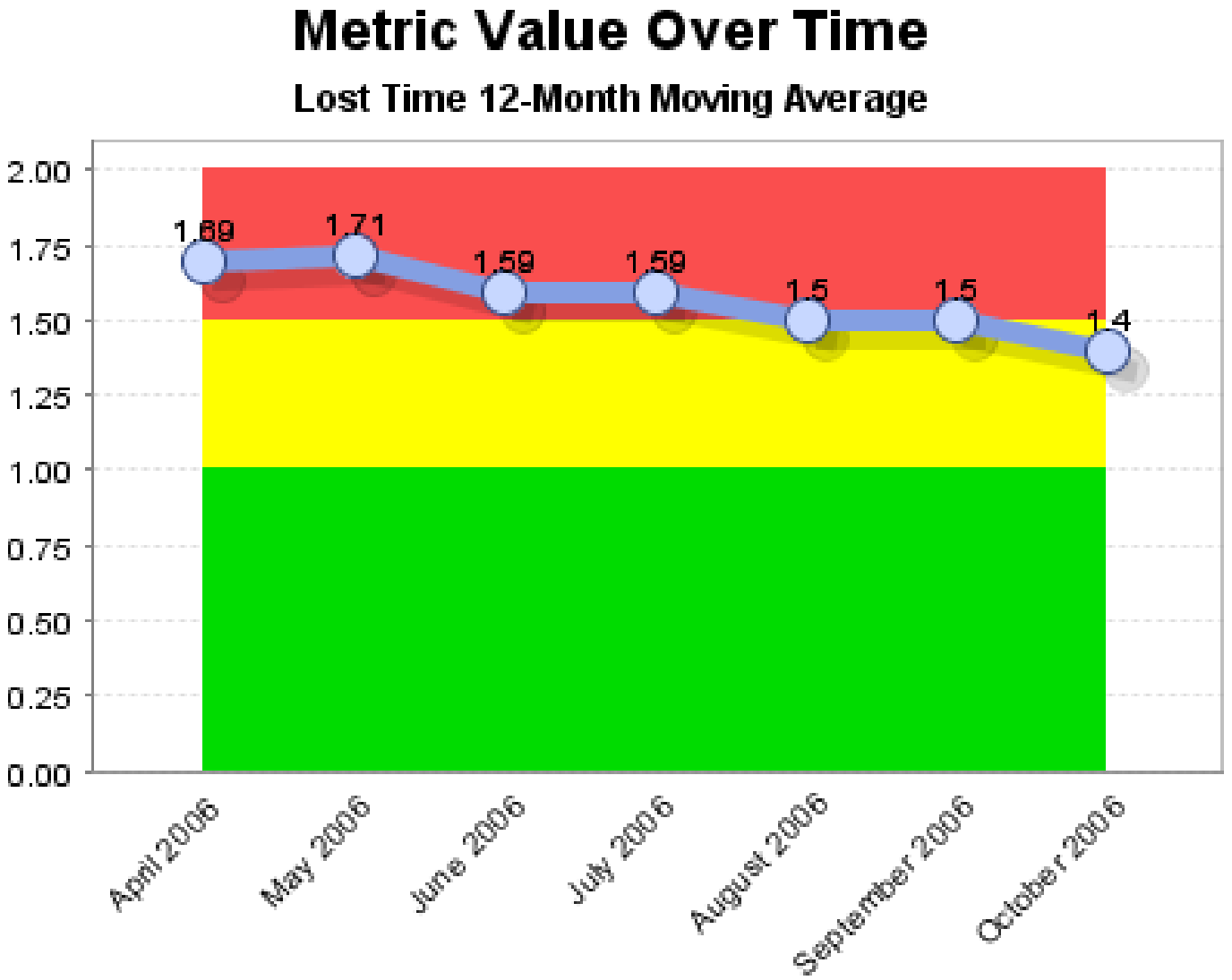
Safety Performance Status

Cases and Frequency Rates

FY 2005 vs FY 2006

CASES	FY 2005	FY 2006	CHANGE (+/-)
LOST TIME	19	17	-11%
OSHA RECORDABLE	72	75	4%
FIRST-AID	42	59	40%
TOTAL	114	134	18%
LOST WORK DAYS	158	69	-56%
HOURS WORKED	2,157,993.1	2,308,641.3	7%
FREQUENCY RATES	FY 2005	FY 2006	CHANGE (+/-)
LOST TIME	1.76	1.47	-16%
OSHA RECORDABLE	6.67	6.50	-3%
FIRST-AID	3.89	5.11	31%
TOTAL INCIDENT	10.57	11.61	10%
LOST DAYS	14.64	5.98	-59%

Corporate Metric



Safety Performance Status

Cases and Frequency Rates

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Associated Cost

FISCAL YEAR	MEDICAL	COMPENSATION (COMP)	CONTINUATION OF PAY (COP)	TOTAL
2001	240,120.70	485,823.60	12,291.91	$ 738,235.81
2002	126,583.87	444,853.99	10,000.05	$ 581,437.91
2003	79,892.48	475,314.47	6,432.12	$ 561,639.07
2004	108,322.01	452,148.64	22,188.26	$ 582,658.91
2005	211,796.48	408,261.00	34,156.91	$ 654,214.39
2006	208,089.03	424,688.67	22,750.59	$ 655,528.29
TOTAL	$	$ 1,809,844.78	$ 95,527.93	$

Cost Avoidance

Calculating Cost Avoidance:

Cost Avoidance = [(Base Year Lost Time Rate / Current Year Lost Time Rate) x (Current Year Total Cost)] - (Current Year Total Cost)

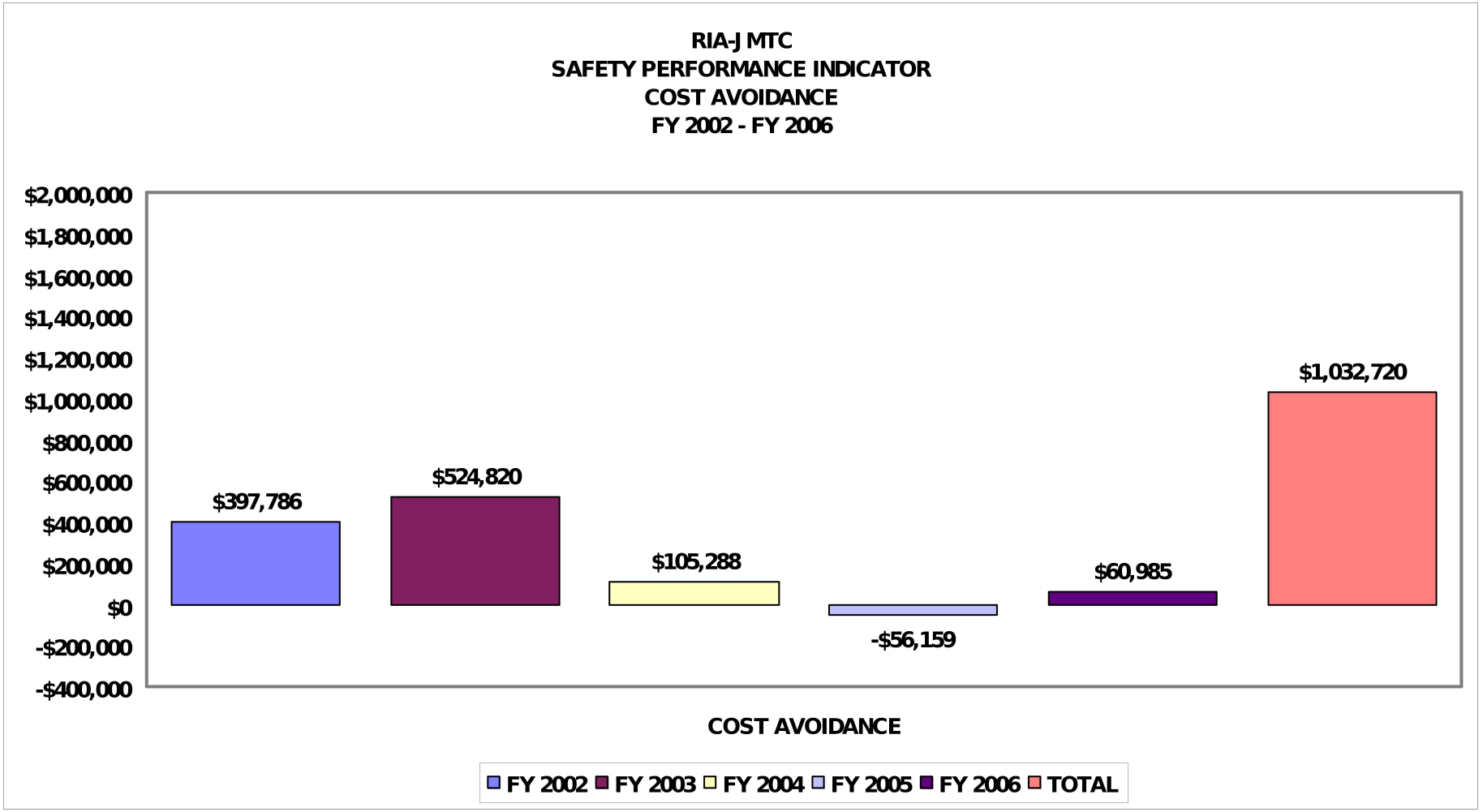
Example: Calculating FY 2002 Cost Avoidance using FY 2001 Lost Time Rate as the Base Year.

Cost Avoidance = [(1.61/0.96) x $ 581,437.91] - $ $ 581,437.91

= - $ 397,785.79

Note: Lost Time Rate is the best indicator for

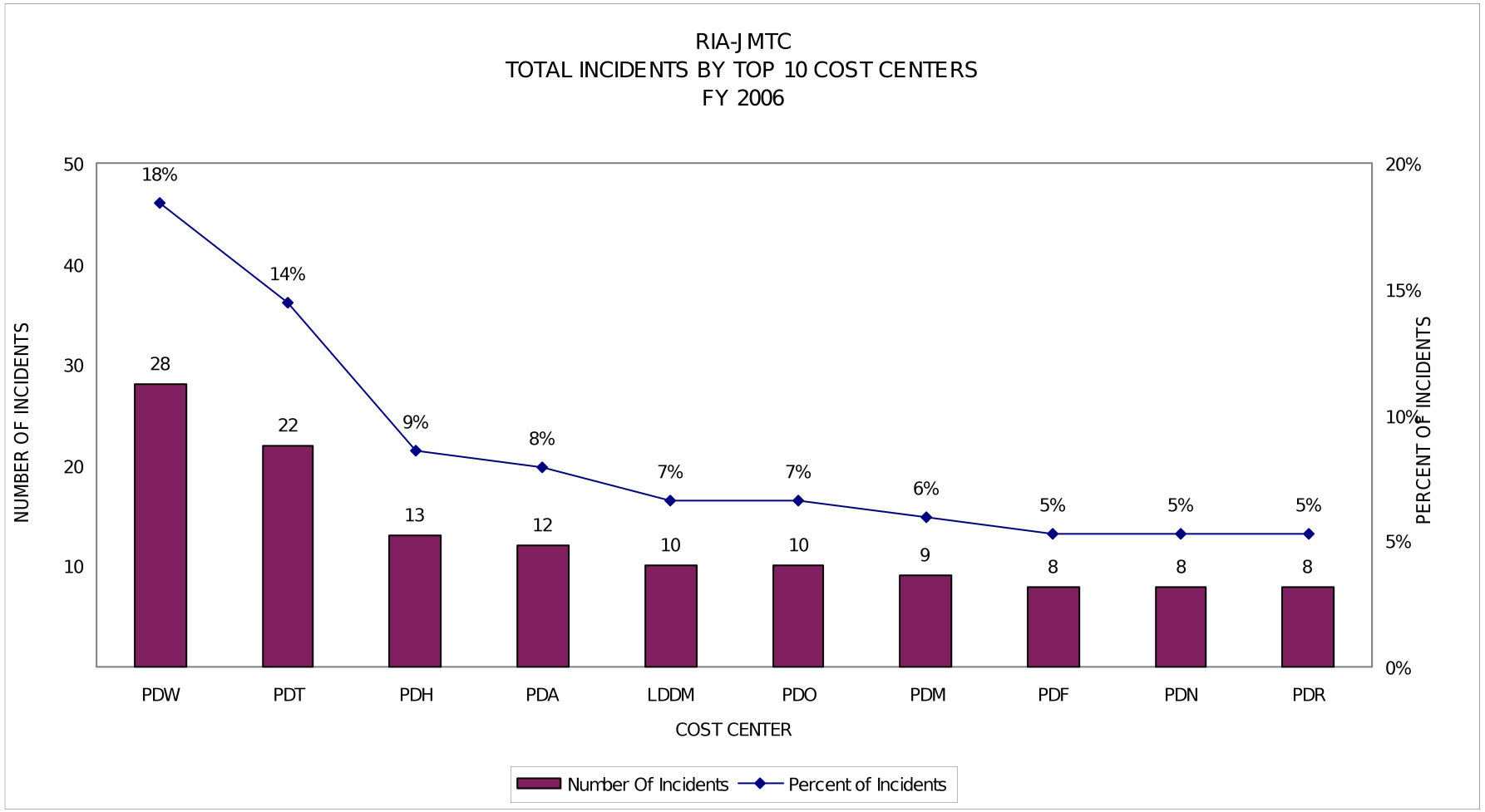
Cost Avoidance

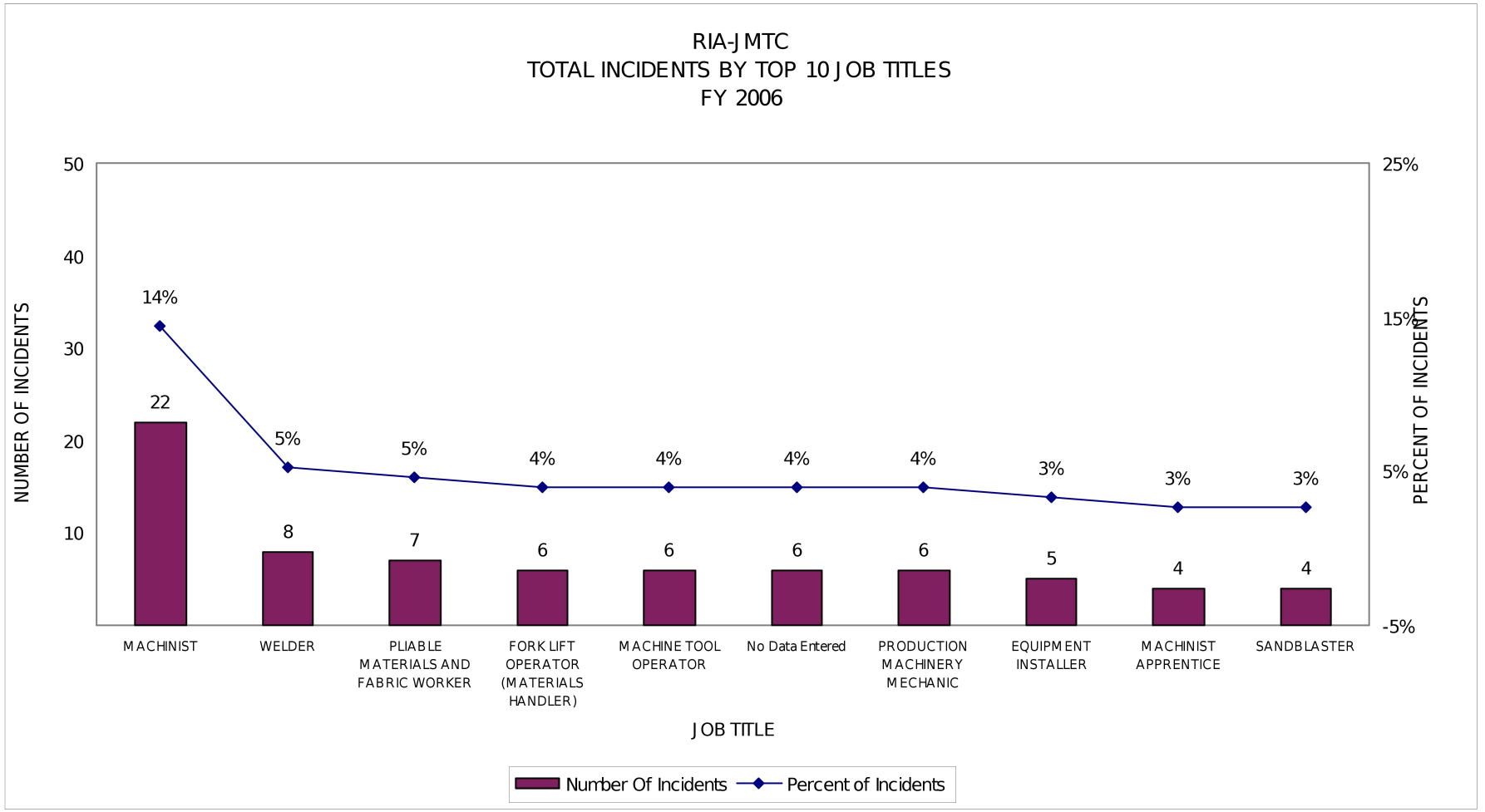


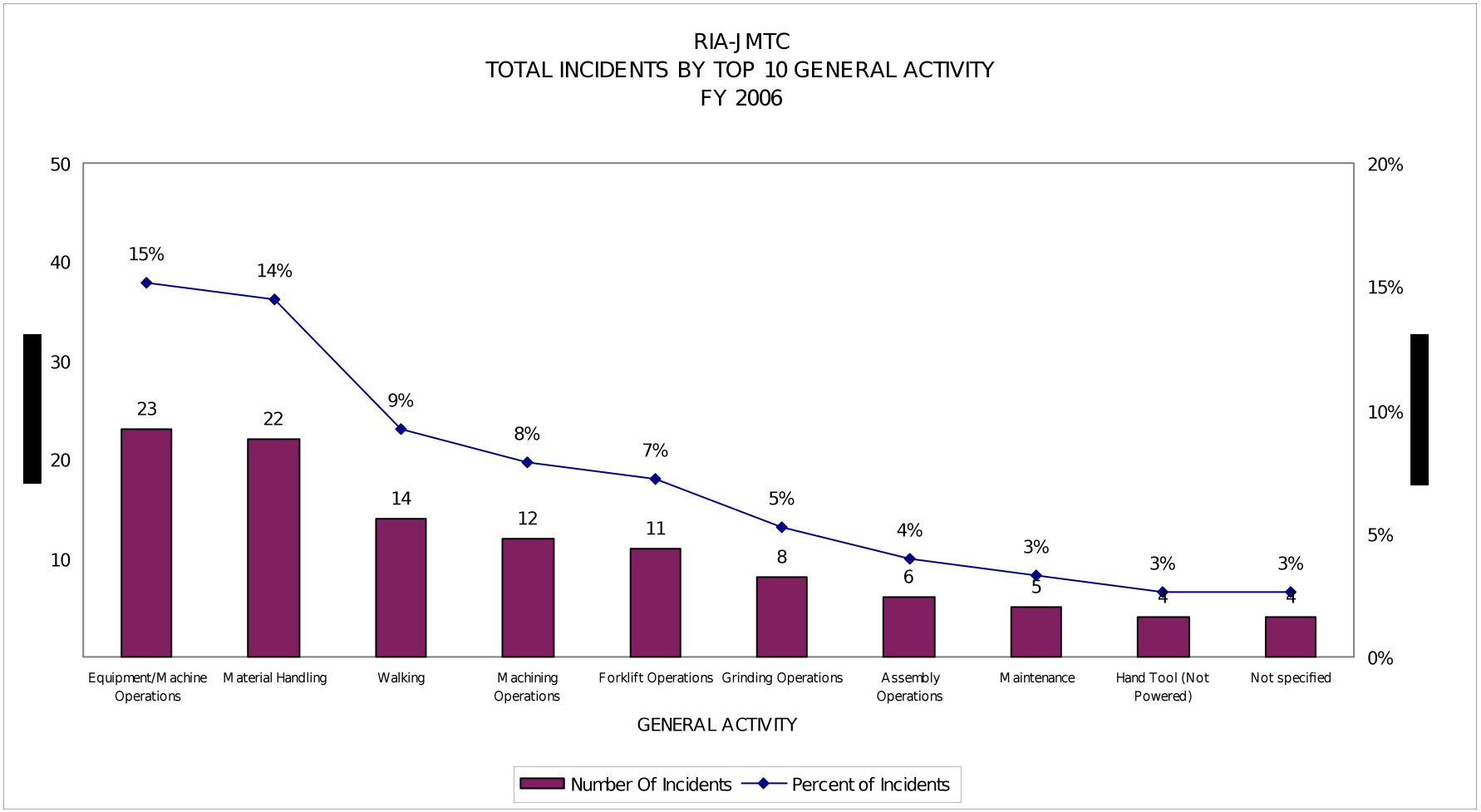
Safety Performance Profile

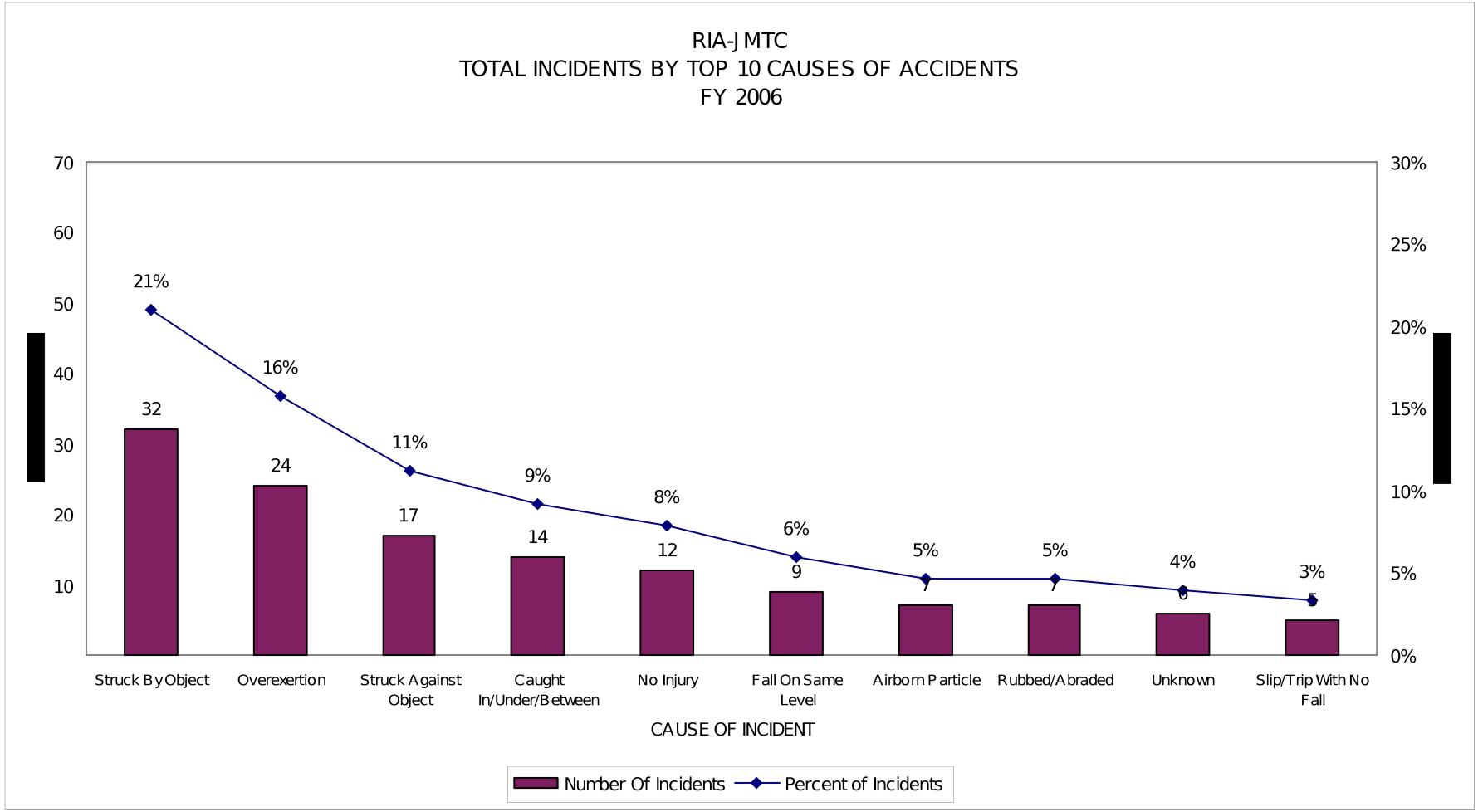
Safety Performance

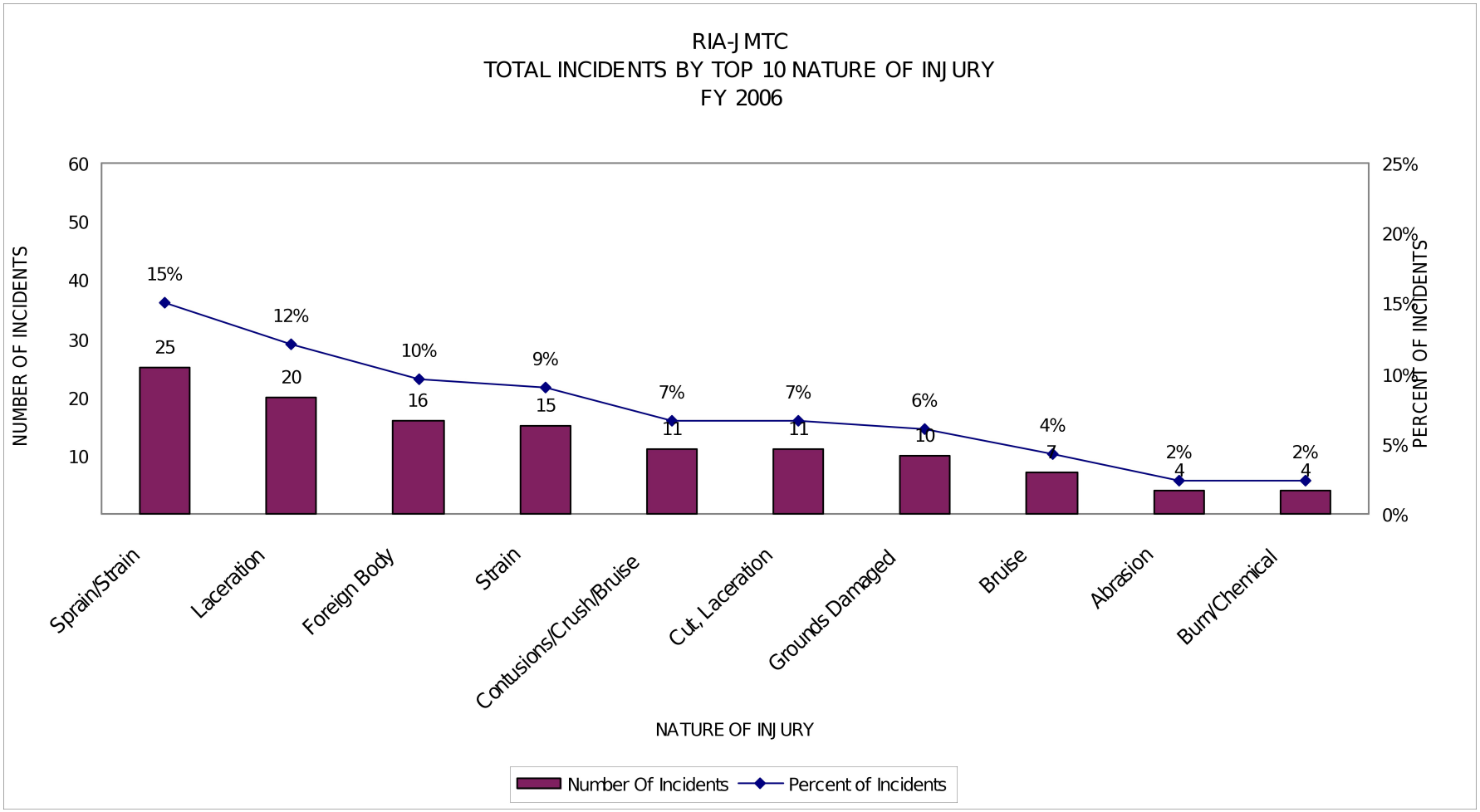
- **RIA-JMTC Safety Performance Profile**
  - **Analysis by Top 10:**
    - **Cost Centers**
    - **Job Titles**
    - **General Activity**
    - **Causes of Incidents**
    - **Nature of Injury**
    - **Body Parts**
    - **Injury Sources**
    - **General Location**
    - **Time of Day**

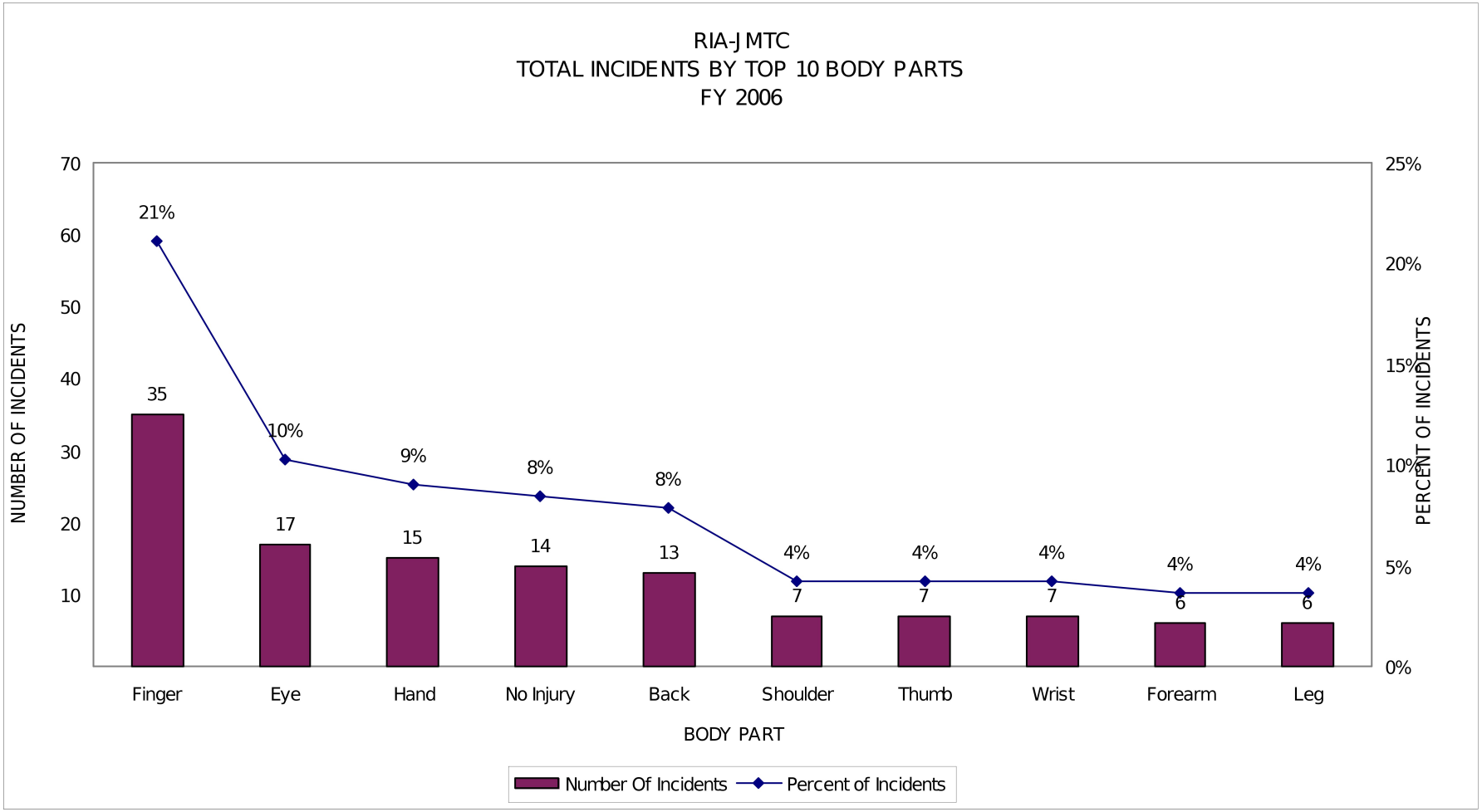

RIA-JMTC
TOTAL INCIDENTS BY TOP 10 COST CENTERS
FY 2006
NUMBER OF INCIDENTS
PERCENT OF INCIDENTS
50
40
30
20
10
20%
15%
10%
5%
0%
18%
14%
9%
8%
7%
7%
6%
5%
5%
5%
28
22
13
12
10
10
9
8
8
8
PDW
PDT
PDH
PDA
LDDM
PDO
PDM
PDF
PDN
PDR
COST CENTER
Number Of Incidents
Percent of Incidents

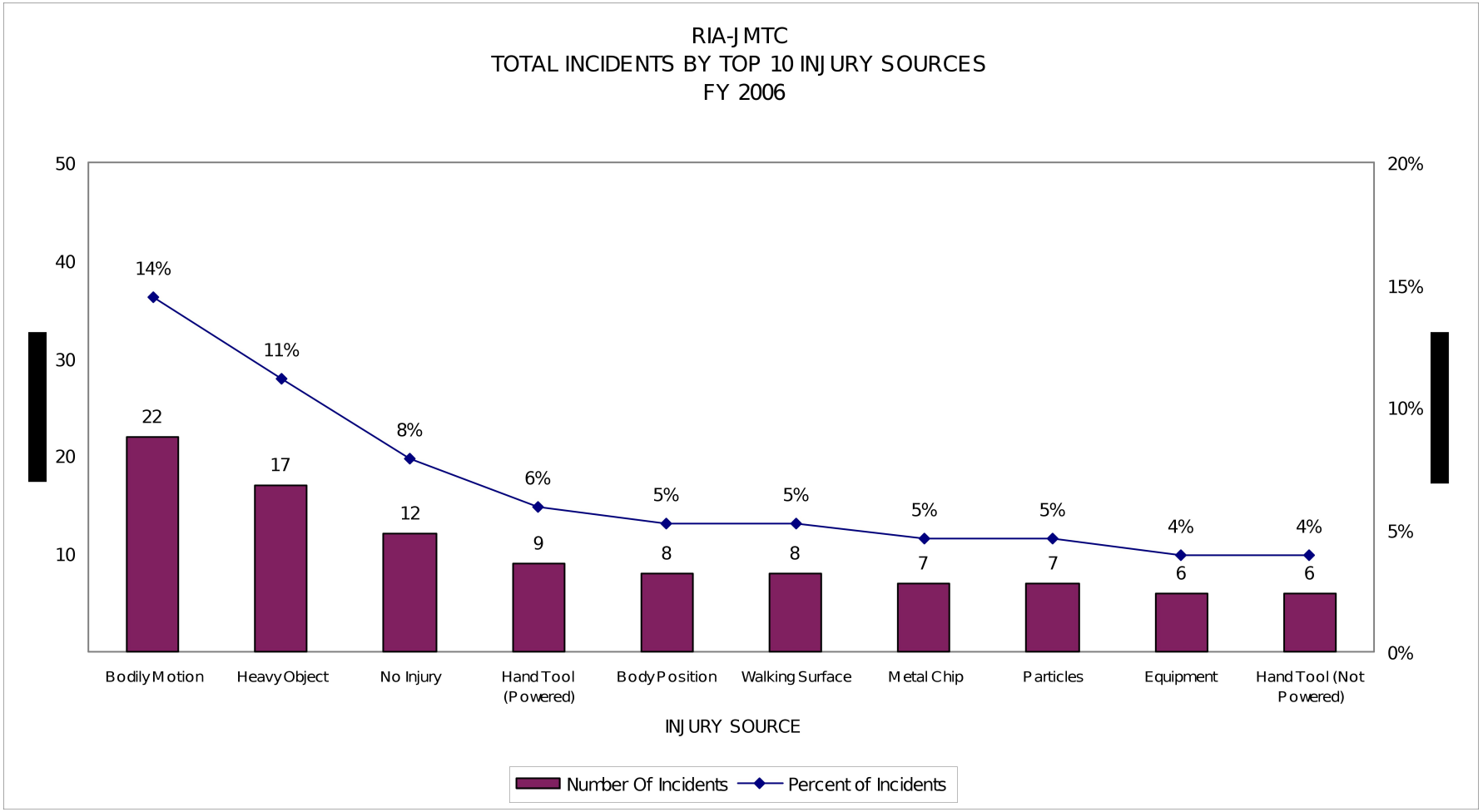

RIA-JMTC
TOTAL INCIDENTS BY TOP 10 JOB TITLES
FY 2006
NUMBER OF INCIDENTS
PERCENT OF INCIDENTS
50
40
30
20
10
25%
15%
5%
-5%
14%
5%
5%
4%
4%
4%
4%
3%
3%
3%
22
8
7
6
6
6
6
5
4
4
MACHINIST
WELDER
PLIABLE MATERIALS AND FABRIC WORKER
FORK LIFT OPERATOR (MATERIALS HANDLER)
MACHINE TOOL OPERATOR
No Data Entered
PRODUCTION MACHINERY MECHANIC
EQUIPMENT INSTALLER
MACHINIST APPRENTICE
SANDBLASTER
JOB TITLE
Number Of Incidents
Percent of Incidents

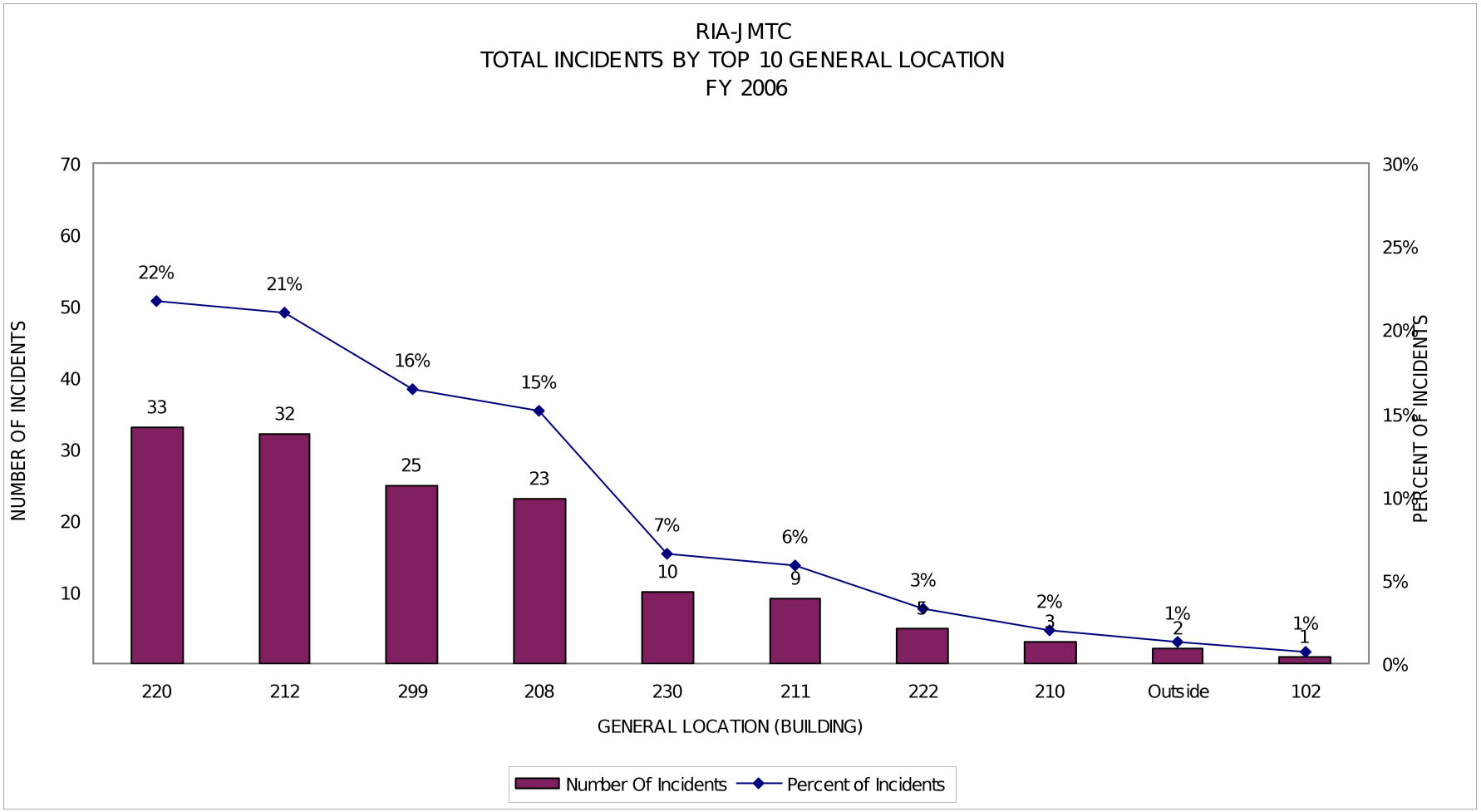

RIA-JMTC
TOTAL INCIDENTS BY TOP 10 GENERAL ACTIVITY
FY 2006
50
40
30
20
10
20%
15%
10%
5%
0%
15%
14%
9%
8%
7%
5%
4%
3%
3%
3%
23
22
14
12
11
8
6
5
4
4
Equipment/Machine Operations
Material Handling
Walking
Machining Operations
Forklift Operations
Grinding Operations
Assembly Operations
Maintenance
Hand Tool (Not Powered)
Not specified
GENERAL ACTIVITY
Number Of Incidents
Percent of Incidents

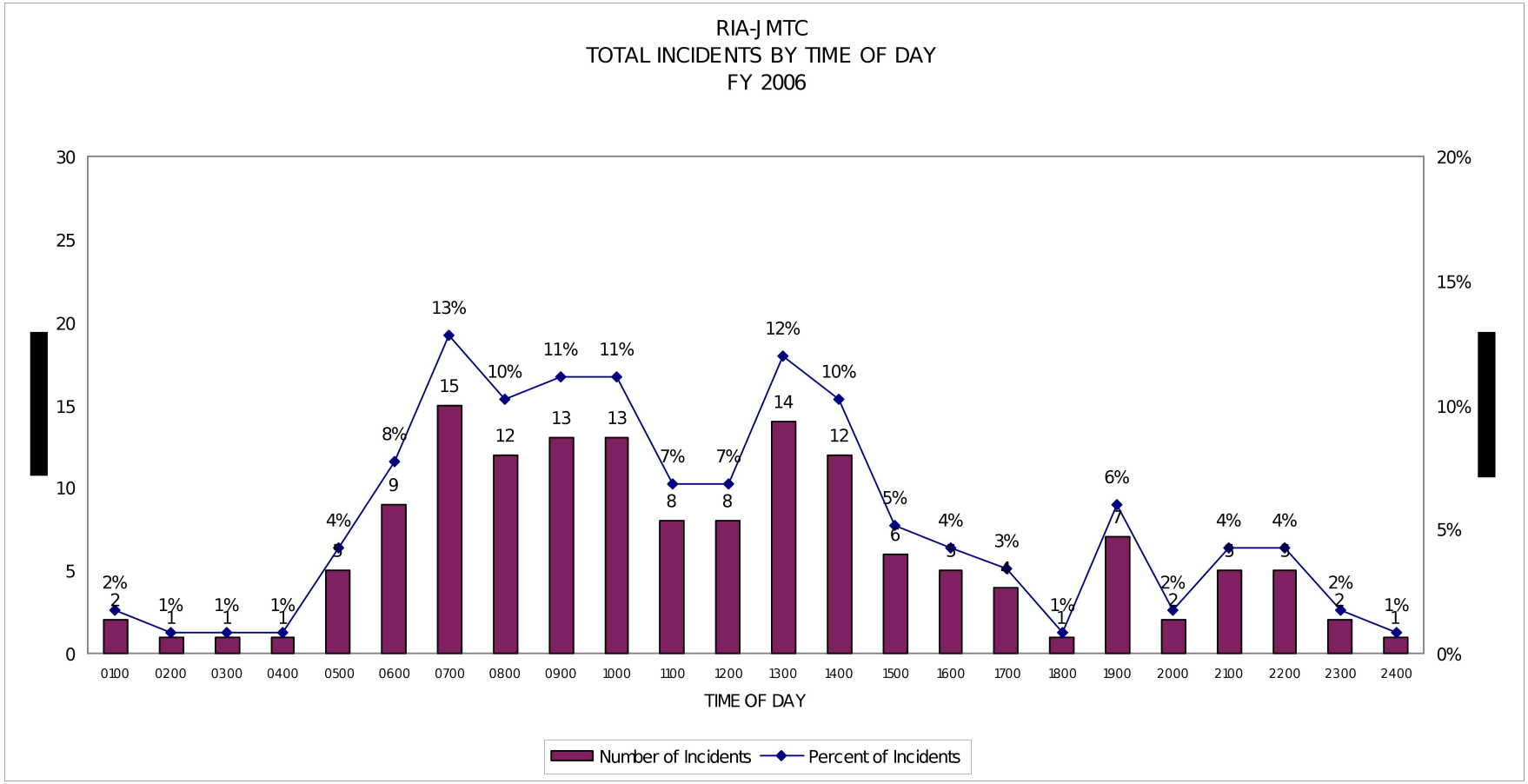

RIA-JMTC
TOTAL INCIDENTS BY TOP 10 CAUSES OF ACCIDENTS
FY 2006
70
60
50
40
30
20
10
30%
25%
20%
15%
10%
5%
0%
21%
16%
11%
9%
8%
6%
5%
5%
4%
3%
32
24
17
14
12
9
7
7
6
5
Struck By Object
Overexertion
Struck Against Object
Caught In/Under/Between
No Injury
Fall On Same Level
Airborn Particle
Rubbed/Abraded
Unknown
Slip/Trip With No Fall
CAUSE OF INCIDENT
Number Of Incidents
Percent of Incidents


RIA-JMTC
TOTAL INCIDENTS BY TOP 10 NATURE OF INJURY
FY 2006
NUMBER OF INCIDENTS
PERCENT OF INCIDENTS
60
50
40
30
20
10
25%
20%
15%
10%
5%
0%
15%
12%
10%
9%
7%
7%
6%
4%
2%
2%
25
20
16
15
11
11
10
7
4
4
Sprain/Strain
Laceration
Foreign Body
Strain
Contusions/Crush/Bruise
Cut, Laceration
Grounds Damaged
Bruise
Abrasion
Burn/Chemical
NATURE OF INJURY
Number Of Incidents
Percent of Incidents


RIA-JMTC
TOTAL INCIDENTS BY TOP 10 BODY PARTS
FY 2006
NUMBER OF INCIDENTS
PERCENT OF INCIDENTS
70
60
50
40
30
20
10
25%
20%
15%
10%
5%
0%
21%
10%
9%
8%
8%
4%
4%
4%
4%
4%
35
17
15
14
13
7
7
7
6
6
Finger
Eye
Hand
No Injury
Back
Shoulder
Thumb
Wrist
Forearm
Leg
BODY PART
Number Of Incidents
Percent of Incidents


RIA-JMTC
TOTAL INCIDENTS BY TOP 10 INJURY SOURCES
FY 2006
50
40
30
20
10
20%
15%
10%
5%
0%
14%
11%
8%
6%
5%
5%
5%
5%
4%
4%
22
17
12
9
8
8
7
7
6
6
Bodily Motion
Heavy Object
No Injury
Hand Tool (Powered)
Body Position
Walking Surface
Metal Chip
Particles
Equipment
Hand Tool (Not Powered)
INJURY SOURCE
Number Of Incidents
Percent of Incidents


RIA-JMTC
TOTAL INCIDENTS BY TOP 10 GENERAL LOCATION
FY 2006
NUMBER OF INCIDENTS
PERCENT OF INCIDENTS
70
60
50
40
30
20
10
30%
25%
20%
15%
10%
5%
0%
22%
21%
16%
15%
7%
6%
3%
2%
1%
1%
33
32
25
23
10
9
5
3
2
1
220
212
299
208
230
211
222
210
Outside
102
GENERAL LOCATION (BUILDING)
Number Of Incidents
Percent of Incidents


RIA-JMTC
TOTAL INCIDENTS BY TIME OF DAY
FY 2006
30
25
20
15
10
5
0
20%
15%
10%
5%
0%
2% 1% 1% 1% 4% 8% 13% 10% 11% 11% 7% 7% 12% 10% 5% 4% 3% 1% 6% 2% 4% 4% 2% 1%
2 1 1 1 5 9 15 12 13 13 8 8 14 12 6 5 4 1 7 2 5 5 2 1
0100 0200 0300 0400 0500 0600 0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400
TIME OF DAY
Number of Incidents
Percent of Incidents

Accident Investigation

- **Commander Sets Policy on Conducting Accident Investigations.**
  - **All policies are formal and written.**
  - **Accidents are reported within 2 hours of the occurrence.**
  - **Accidents are investigated with 72 hours of the occurrence.**
  - **Safety After Accident Review (SAAR) Accident Investigation Report is completed for incident and forwarded to RIA Garrison Safety Office within 5 days of occurrence.**
  - **RIA Form 385-9 Employee Dispensary and Status Form, shall be completed for all incidents requiring treatment at RIA Health Clinic.**

"All accidents, no matter how minor they appear, shall be reported and investigated according to established policies and procedures."

ROCK ISLAND ARSENAL
CENTER FOR EXCELLENCE